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ABSTRACT

This report describes three model demonstration projects in Ohio school districts which focused on identifying types of gifted underachievers and providing them with services through unique instructional models. Provided for each program is information on: identifying characteristics (district, location, school population, project director); project goals, objectives and activities; project results; promising practices and recommendations; and project products. The first project is ACE: Achieving Cognitive Enhancement (Putnam County); which provides inservice training to classroom elementary teachers on the development of gifted students' higher order thinking skills using computers in the regular classroom. The second project is Helping Underachieving Gifted Students (Springfield). This project attempts to identify and serve gifted students in populations consistently underrepresented in the regular gifted enrichment program. The third project is in Rock River. It utilizes a "teacher as researcher" model in its goals of designing an identification process, providing learning options, monitoring students' progress, and disseminating project results. An epilogue notes common recommended practices of all three projects including the importance of staff development, multifactored evaluation, and the value of assessing learning styles. (DB)

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Models for Improving the Delivery of Services to:

Underachieving Gifted Students

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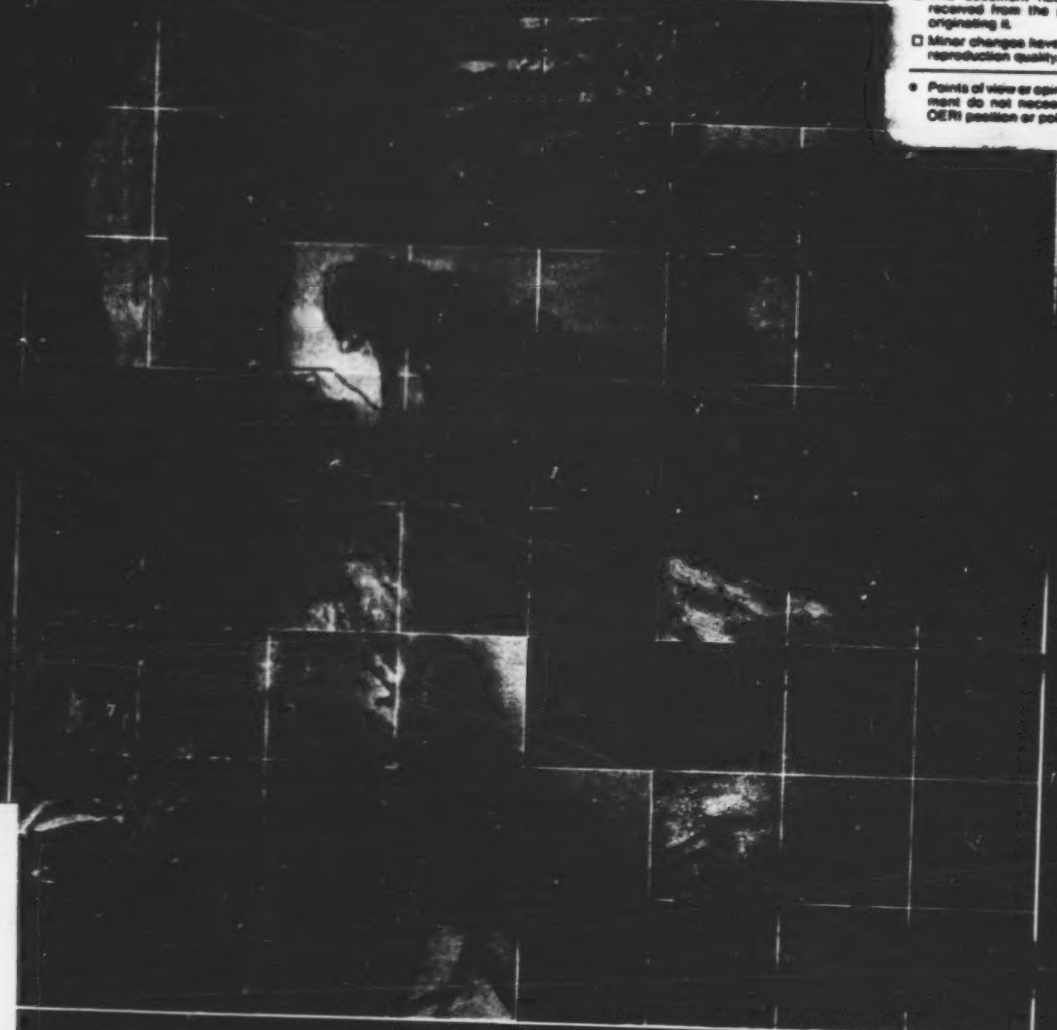

EC301618

Research & Demonstration Series in Gifted Education

Ohio Department of Education
Columbus, Ohio
1992

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September 1992

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Cover artwork by elementary and middle school students from the Federal Hocking Local School District (clockwise from left): Adam Fowler, Daniel Wiseman, Jeremy Dotson, Richie McFee, Chris Dixon, and Heidi Rasmusson.

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TED SANDERS
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STATE OF OHIO
DEPARTMENT OF EDUCATION
COLUMBUS
43266-0308

September 1992

Dear Colleagues:

Although Ohio has shared in the growth of programs designed to serve gifted youngsters, a dramatic decline in academic performance over the last two decades, coupled with national concern over American productivity, has renewed interest in providing appropriate educational opportunities for all students.

In Ohio, programs have expanded from serving gifted children in 8.6 instructional units in 1975 to serving 25,974 students through 515 state-funded units and 57,146 students through locally funded programs during the 1990-91 school year. Despite this apparent growth, an additional 137,843 students identified as gifted or talented received no special services in 1990-91.

Models for Improving the Delivery of Services to Underachieving Gifted Students is the first of four publications that comprise the research and demonstration series in gifted education. In each of these publications, school district models designed to improve the quality of education for our most-able students are described. These models, which represent our best thinking, reflect Ohio's commitment to meet the unique and individual needs of each student.

I express my sincere appreciation to the many individuals at the local school district level for their energy and dedication, and to Nancy Hamant, consultant in the Division of Special Education, and Marlene Bireley, editorial consultant, who spent many hours preparing the model descriptions for publication.

It is our hope that as educators implement the recommendations contained in the research and demonstration series, all students, including those who are gifted and talented, will benefit from improved educational opportunities and experiences.

Sincerely,

Ted Sanders
Superintendent of Public Instruction

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Preface

In March 1991, *Interacting for Quality Learning: A Gifted Education Strategic Plan for the 1990's* was published under the direction of the Task Force for Effectiveness of Programs for Gifted Children. Around the time the Task Force was established, Ohio's General Assembly appropriated funds to establish research and demonstration projects for the development of model gifted education programs in the following four priority areas:

- Identifying and providing services to underachieving gifted;
- Identifying and providing services to students who are gifted in the areas of visual and performing arts;
- Providing a continuum of services to gifted students; and
- Identifying creative-thinking ability.

Thirteen districts representing rural, urban, and suburban Ohio were awarded research and demonstration grants for implementation during the 1989-90 and 1990-91 school years. Four publications comprising the research and demonstration series in gifted education have been prepared to disseminate project findings and recommendations.

Underachieving Gifted

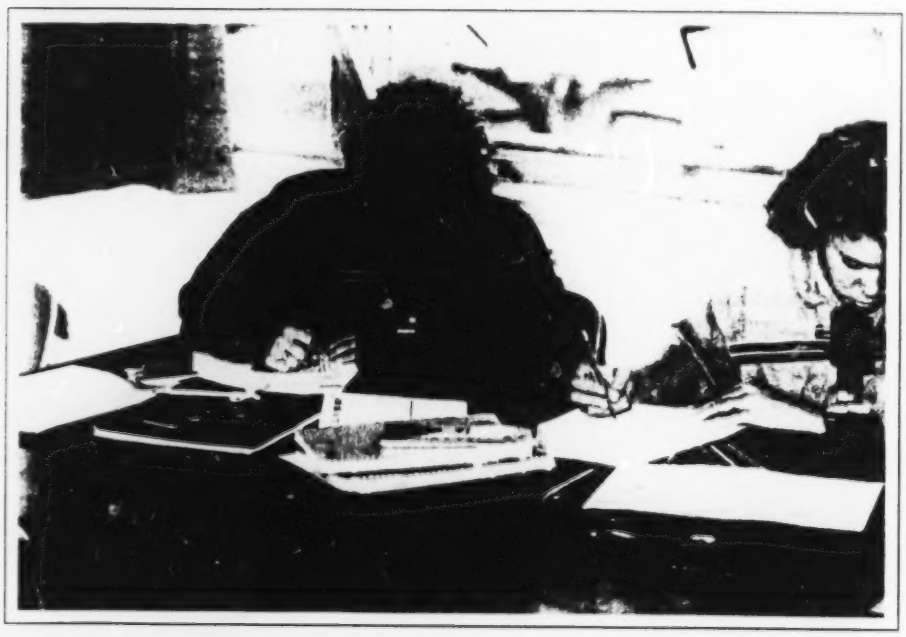
The first, *Models for Improving the Delivery of Services to Underachieving Gifted Students,* describes three projects that focused not only on identifying types of gifted underachievers, but also on providing services through unique instructional models. In Rocky River City Schools, a "teacher as researcher" model empowered regular classroom teachers to work with underachieving gifted students. In rural Putnam County, a combination of total staff development in grades 1-8 and the adaptation of a computer-based higher-order thinking skills program was explored. And, in urban Springfield, a broad-based assessment system was used to develop an identification/intervention system.

Visual and/or Performing Arts

In *Models for Improving the Delivery of Services to Gifted Students in the Areas of Visual and Performing Arts,* strategies for identifying students, delivering hands-on arts appreciation experiences, and the development of curriculum guides are described. In Defiance City Schools, regular education teachers were prepared to increase students' access to various art media. Wheelersburg City School students were taught to use computer technology as an art medium. Lastly, in Federal Hocking Local School District (Athens County), students were made aware of the artistic components of their rural environment through art experiences, interaction with local artisans, field trips, and slide presentations.

Continuum of Services The third publication of the series, *Models for Providing a Continuum of Services to Gifted Students*, includes descriptions of six model programs that focused on the expansion of services in different contexts and grade levels. Districts awarded model projects in this priority area included Cleveland City Schools, Forest Hills Local Schools (Hamilton County), Muskingum County Schools, Reynoldsburg City Schools, Sidney City Schools, and Toledo City Schools. Various model programs, such as Major Works mentorships, Talents Unlimited, and Teacher-Leaders, are highlighted.

Creativity The fourth and final publication in the research and demonstration series describes a *Model for the Identification of Creative-Thinking Ability*. One project was awarded in this priority area to the Upper Arlington City Schools. Project personnel believed that in order to provide appropriate educational services, the characteristics and needs of creatively gifted children should first be determined. The district's identification process, including research-based activities, standardized and performance-based assessment, and multiple resources and forms, are described in the publication.



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Introduction

Underachievement in gifted populations is not a unitary concept and should not be addressed as such. Whitmore (1988, p. 11) has identified several groups at risk for academic underachievement. They include "the most highly gifted and creative children, young boys, adolescent girls, gifted students with mild to severe handicaps, and gifted students whose cultural backgrounds are different from the dominant culture of the community." In general, underachievement may be considered a discrepancy between ability and achievement, but to base this difference solely on traditional assessment instruments is fallacious in that *both* the ability and achievement measures may be depressed by the same circumstances and *both* may be overlooked in the identification process. Davis and Rimm (1989, p. 304) suggest that underachievement should be defined as "a discrepancy between the child's school performance and some index of his or her actual ability, such as intelligence, achievement, or creativity scores, or observational data."

In the three studies that comprise this publication, various approaches for identifying and providing services to underachieving gifted students are described. In Rocky River City Schools, a preventative counseling and instructional program was initiated in the primary grades based upon "observable high-risk" behaviors. For older students identified by more formal assessments, emphasis was placed on providing alternative instructional strategies, such as computer-based programs for kinesthetic learners.

In Putnam County, the cognitive processes were enhanced and the learning process energized through inservice training and computer technology that encouraged the development of higher-order thinking skills within and beyond the school setting.

In Springfield City Schools, students were chosen from traditionally underrepresented populations, and their needs were addressed by the development of specific individual intervention plans. Within this group, assessment criteria that varied from current state standards were used to identify the potentially gifted segment.

None of these projects provides definitive answers to the troublesome problem of underachievement in the gifted population. It is clear that much of the intervention for this group must take place in regular classroom settings and that flexibility in teaching style and instructional strategies is a key component to successful programming. For many underachievers, intervention for the development of affective skills is as critical as academic remediation. When self-esteem is raised, improved academic achievement often follows.

Identification criteria for children disadvantaged by social, economic, or emotional circumstances must acknowledge that both ability and achievement scores may be depressed by these conditions and that without some initial intervention, neither the scores nor the achievement will reach the level anticipated for gifted children. Yet, in the words of Richert, Alvino, and McDonnel (1982, p. 128), "if any gifted students need programs, then these groups need them most. Excluding them from programming just because different procedures are sometimes necessary to find them violates educational equity and is totally indefensible."

The results described herein are the outcome of honest efforts to understand this difficult and multifaceted issue. Hopefully they will heighten the reader's awareness of the needs of the underachieving gifted and will provide some guidance in the development of identification and programming procedures for this population in other school districts.

References

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Richert, E.S., Alvino, J., & McDonnel, R. (1982). *National report on identification: Comprehensive identification of gifted and talented youth.* Sewell, NJ: Educational Information and Resource Center.

Whitmore, J. (1988). Gifted children at risk for learning difficulties. *Teaching Exceptional Children, 20,* 10-14.

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ACE: Achieving Cognitive Enhancement

Identifying Information

District: Putnam County Schools
336 E. Main St.
Ottawa, OH 45875
(419) 523-5951

Location: Rural, northwest Ohio

Population: 7,210 ADM (93% Caucasian; 7% minority, primarily Hispanic)

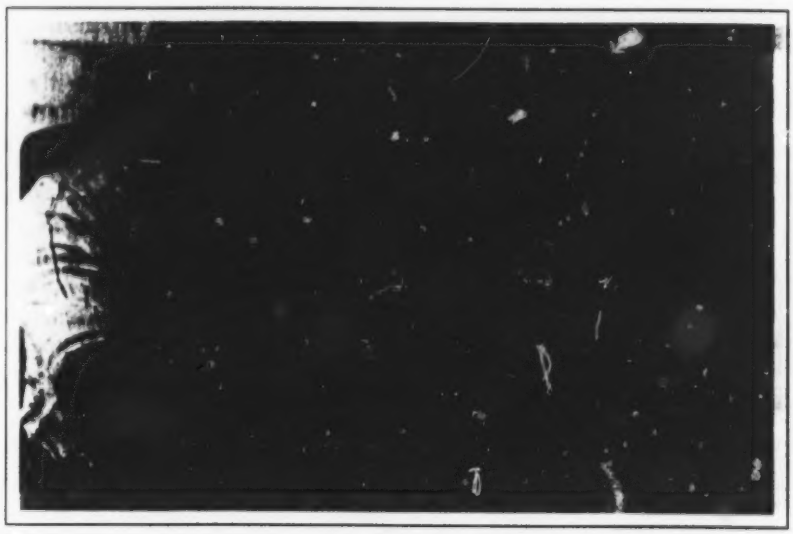
Project Director: Kathy Hartman, gifted/talented coordinator

Project Goal and Objectives

The goal of project ACE is to empower classroom teachers (grades 1-8) with the necessary knowledge and specific skills that would ensure the development of gifted students' higher-order thinking skills (HOTS) in the regular classroom.

The objectives of the project are to

- Provide teachers and their students with a working knowledge of Bloom's Taxonomy;
- Provide teachers with the skill needed to teach students to process subject matter in a more critical, analytical, and thorough manner;
- Provide teachers with the skill to teach students to become more flexible and creative in their thinking;
- Provide teachers with the skill needed to involve students more actively in the learning process;
- Encourage students to use HOTS both within and beyond the school environment;
- Encourage students to synthesize information from a variety of sources; and
- Encourage students to gain meaning from contextual clues.



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Activities

Project personnel undertook the ambitious task of involving all grade 1-8 teachers in the nine participating school districts in this project. In the spring of 1990, staff development meetings involving 159 teachers were held in each of the nine local school districts to accomplish this task. Attendance was encouraged by payment of a stipend and by holding the meetings on a local basis. Teachers unable to attend their local inservice meeting could participate in another district's inservice. After the initial inservice meeting day, monthly activity booklets, based on targeted skills, were sent to the teachers. In the fall of 1990, 27 teachers attended an additional inservice on HOTS. The content of the activity booklets focused on

May	Higher-Order Thinking Skills (definition and activities)
September	Analogical Reasoning
October	Extrapolation
November	Evaluation of Evidence
December	Examination of Value
January	Decision making
February	Nonlinguistic patterns
March	Elaboration
April	Solving Everyday Problems and Academic Problems
May	Invention

The original intent of the project was to focus on training in and implementation of the HOTS model developed by Dr. Stanley Pogrow from the University of Arizona. The program, which was originally developed for students in Chapter 1 or other remedial student programs, combines verbal instruction with hands-on computer learning, and focuses on improving the understanding of the language of mathematics and of mathematical concepts.

Although Dr. Pogrow was contracted to adapt the program to meet the needs of gifted students, delays in completing the desired program eliminated much of this portion of the project activities. Nevertheless, the two gifted education teachers in the county did observe use of and receive on-site training in the Pogrow program from teachers in those districts.

These teachers and the gifted/talented coordinator also received three days of training. Additionally, they had the opportunity to work with the newly developed HOTS software, which was incorporated into the grades 4-6 gifted curriculum for a period spanning mid-April until the end of the school year. During this short trial period, it was found that students liked the HOTS computer program material and completed the program at a faster rate than had been anticipated by the developer. The HOTS program will be extended beyond the scope of the project for use during the 1992-93 school year.

Since the HOTS program did not become available on a large-scale basis, an alternative plan was devised in which the gifted teachers became in-house consultants, offering several staff development and child-service options to their colleagues in various districts.

Project Results

Since the nature of the project was to enhance regular classroom teachers' skills in teaching higher-order thinking skills, it can be anticipated that all students of the 159 teachers who attended the inservice received some benefit. No exact count of underachieving gifted students was reported. Underachievement, in this project, was defined as students who were eligible for the preliminary gifted screening because they had received an ability score of 120 or higher on the Cognitive Abilities Test, but whose basic skill scores were less than the anticipated 95th percentile. Grades were not a criterion for underachievement.

One hundred fifty-nine teachers received introductory inservice on higher-order thinking skills. Twenty-seven received a second session on the topic. Two of the three gifted educators in the county received extensive training in the Pogrow HOTS program, and the gifted and talented coordinator participated in part of this training. Infusion of gifted education into regular education classrooms by the three gifted educators, by invitation of the regular educators, was used as the model for establishing an ongoing staff development program. Examples of this infusion process included

Extension of Services to Regular Classrooms. Services were extended to regular classrooms for a period of five hours per week by all three teachers. During this time, the gifted teachers introduced thinking skills to the regular education students, provided hands-on activities, and suggested practical applications of the skills taught. In one district, regular classroom teachers responded by conducting such extension activities as computer enrichment, creative-writing sessions, and logic and creative-thinking exercises in their own classrooms.

Enrichment Activities. The gifted education teacher in another district provided enrichment activities in the resource room for underachieving students not placed in gifted education. Students were released from study hall for one semester to attend this program. This program increased the acceptance of the resource room program in the whole school and diminished the number of junior high dropouts from the program. Additionally, two intermediate underachievers were incorporated successfully into the regular gifted program.

Consultation for Identification. In a third situation, the gifted education teacher was invited to observe fourth-grade students. After meeting with the teacher, two underachieving students were identified and placed successfully in the resource room program.

Program Development. In a fourth district, the grant provided for a one-day-per-week program for fifth- and sixth-grade students. Since the focus was on underachievement, students selected for inclusion exhibited high cognitive abilities, but erratic achievement scores. These students participated in the resource room program with no drop in their regular grades, appeared excited about this opportunity, and expressed disappointment that the services would not be extended into junior high school. This group received a "superior" rating in the county Mind Match program in the spring of 1991.

Promising Practices and Recommendations

Difficulty acquiring materials in a timely manner changed the original intent of the project. Success was achieved in small steps for a few individuals, rather than a dramatic change for many individuals. Those practices that appeared fruitful included the following:

1. The gifted education staff acquired new skills in the use of computer technology as a vehicle for teaching higher-order thinking skills and piloted both the computer program and the newly learned techniques with children in a pull-out program.
2. The gifted education teachers became in-house consultants, and began slowly to change the thinking and instructional patterns of participating teachers. This type of change may, serendipitously, be considered better than the massive, rapid change in teacher approach envisioned in the original goals of the project. The grant provided the impetus for the changes that have been made and that are anticipated to continue.
3. The use of the monthly newsletter as a vehicle for disseminating specific teaching ideas was successful in this diverse county system.
4. The intensity and duration of staff development were not enough to bring about major changes. A model of intensive training of building representatives who, in turn, would train their colleagues is suggested as more feasible and more likely to lead to ownership of the change process.
5. It is recommended that a time-limited grant not be based on materials not available at the grant's inception. However, once available, the HOTS materials proved exciting and successful during their limited use time. To initiate this program, it is recommended that
   - One Apple IIGS computer be available for every two students;
   - One printer be available for every six computers; and
   - Supervisory or teacher time be available for the start-up phase of this program.

Project Product

A handbook detailing a step-by-step procedure for utilizing higher-order thinking skills in the regular classroom can be obtained by contacting the project director. This handbook includes a description of assisted teacher strategies, such as peer tutoring, reciprocal teaching, cooperative learning, roundtable discussions, descriptions of applications of Bloom's Taxonomy, and creative- and critical-thinking skills. A glossary of higher-level thinking terms is also included.

Helping Underachieving Gifted Students (HUGS)

Identifying Information

District: Springfield City Schools
49 E. College Avenue
Springfield, OH 45504
(513) 328-6858

Location: West Central Ohio

School Population: Approximately 12,000 ADM (72% Caucasian; 26% African-American; 2% Asian, Hispanic, other minorities. Broad range of cultural, economic, and social differences)

Project Directors: Sara Jane Lowe, gifted/talented coordinator
Dorothy Cusack, gifted/talented coordinator

Project Goals, Objectives, and Activities

Goal I: **To identify gifted students in populations consistently underrepresented in the regular gifted enrichment program**

Objective Ia. To identify the four elementary buildings most consistently underrepresented in the mandated identification process

Objective Ib. To identify, within the four buildings, 30 third-grade students who exhibited exceptional cognitive ability coupled with low achievement as identified by a checklist of key behaviors of underachieving gifted (UAG) completed by teachers whose awareness of UAG had been increased through staff development combined with an individual assessment of student abilities

Goal I Activities

The goal of the project staff was to devise an identification checklist for use in referring, with a high degree of reliability, those students considered to be UAG. To develop this checklist, the project staff and consultant researched the existing literature and devised a 23-item checklist adapted primarily from the work of Whitmore, Davis, and Rimm (see Figure 1).

Following the development of the checklist, a three-hour inservice was held for all third-grade staff members in the four buildings, the building administrators, counselors, and school psychologists. This inservice covered the characteristics of the gifted and underachieving gifted and, specifically, introduced the staff to the checklists. The teachers were asked to recommend any students that they thought might qualify as UAG, based on the inservice information and checklist.

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After parental permission was obtained, all recommended students were assessed individually by the assessment consultant or, when appropriate, in small groups by the project teacher. The individual assessments included the *Wechsler Intelligence Scale for Children-Revised (WISC-R),* and selected reading, mathematics, and listening subtests from the *Brigance Diagnostic Comprehensive Inventory of Basic Skills,* used as a basis for developing intervention plans.

This search uncovered an inadequate number of students who met the project criteria of an IQ of 115 on one of the three *WISC-R* IQ scores or a mean of 11.5 on one of the three Kaufman factors on the *WISC-R* (Verbal Comprehension, Perceptual Organization, and Freedom from Distractibility).

The project teacher then perused the group test scores (*Cognitive Abilities Test [CogAT]* and *Iowa Test of Basic Skills [ITBS]*) and cumulative folders of all third graders in the four schools looking for one or more standard scores of 110+; erratic grades, including some above average; and teacher comments such as, "He could do better if he would only try." When candidates found by this search were tested, the total pool was raised to 29, 26 of whom completed the project. Of these, 20 were Caucasian and six were African-American; 15 were males and 11 were females. The teacher administered the *Piers-Harris Children's Self-Concept Scale,* the *Murphy-Meisgeier Type Inventory for Children,* and the *Social Skills Rating System* to the target children as a basis for intervention planning.

At the completion of the project, the assessments were readministered and the suggested cutoffs were reassessed as noted in the recommendations section.

Goal II:	**To enhance the academic achievement of target students and decrease the discrepancy between their performance and potential**
Objective IIa.	To design an in-school intervention program implemented by an appropriately trained specialist
Objective IIb.	To develop individual intervention plans for the students, incorporating affective, study skill, and academic goals
Objective IIc.	To purchase materials and plan field experiences to support the intervention program
Objective IId.	To train parents in intervention strategies

Goal II Activities

Direct Service to Children. Using the assessment data, an intervention plan was developed for each student in the spring of the first year of the project. The teacher and students became acquainted and completed the group tests; but, for all practical purposes, intervention did not begin until the second year. However, in one school during the spring of the first year, a one-on-one mentoring project paired Wittenberg University students in a gifted education class with the UAG students with positive results.

During the second year, the project teacher spent one day per week in each of the four buildings. During one week, the building participants met as a group and worked on group projects. Building positive self-esteem was determined to be a primary need of most students, and this was an overriding theme of many of the group activities. Teamwork, work-study skills, career exploration, computer use, and exploration of a variety of topics were incorporated into these group days. On alternate weeks, the teachers met individually with each student for a short period of time (determined by the number of children in the building). The original intent had been for this to be a time for remediation of basic skills. As the children became known, it was apparent that affective needs were more critical than academic ones. Therefore, these sessions entailed counseling; the development of personal histories; a futures goals study; and the development of metacognitive skills strategies, as opposed to direct instruction in basic skills.

To enrich the rather sparse backgrounds of these students, a number of field trips and enrichment experiences were planned specifically for them. At other times, they were invited to participate in experiences devised for the achieving gifted population. Such experiences included a family outing to the Columbus Center of Science and Industry (COSI), an arts experience delivered by five artists from Days of Creation (from Columbus), involvement in COSI's Young Experimental Scientists Program, an Art After Dark experience, a juggling workshop, a storytelling program, a family picnic each May, and visits to the Columbus Zoo and the Springfield Land Lab. For many of the children, these were first-time experiences.

Service to Parents. Involvement of parents was conceptualized as an important component of this project. It was the least successful because of the unwillingness of the parents to become involved. For many, school was, and continues to be, an uncomfortable place. Parents were invited to come to the individual schools to get feedback on the individual assessment results. Very few did. In the fall of the second year, an evening parent meeting at a central location was scheduled for parents to meet the project teacher and view children's work. After similar low attendance, no other formal meetings were scheduled, and communication was accomplished through less-structured means.

Attendance, which was good at the two family picnics and the family COSI trip, provided opportunities for informal parent conferences at those times. In these "neutral" settings, parents had many appropriate questions about the specifics of the program, the progress of their individual children, and the outlook for their children in the future.

Service to Staff. Prior to identification of the students, the third-grade teachers who would recommend children for the project were given inservice on giftedness and underachievement. After the identification and selection of students were completed, these same teachers received feedback on the results of the assessment and the inclusion/exclusion process by the assessment consultant and project staff. In addition to the initial inservice prior to identification, a similar staff development day was held for the fourth-grade teachers who had received the students in the second year. While they had no responsibility for identification, the process that had been used was explained, and a general

Figure 1
HUGS Identification Checklist

SPRINGFIELD CITY SCHOOLS

Gifted/Talented Programs
Helping Underachieving Gifted Students (HUGS)
Identification Checklist

Student Name_____ Grade_____ Date _____

Teacher Name _____ Building_____

Please check all statements that apply to this student.

☐	1.	Has the ability to think on a high level but classroom performance seems to contradict this; inconsistent classroom work.
☐	2.	Possesses unusual repertoire of factual knowledge, superior comprehension of concepts when interested in the topic.
☐	3.	Exhibits gap between quality of oral and written work.
☐	4.	Displays preference in arts and psychomotor areas to academic performance; creative.
☐	5.	Avoids trying new activities to prevent imperfect performance; perfectionist, self-critical.
☐	6.	Shows initiative in pursuing self-selected projects.
☐	7.	Demonstrates low self-esteem through tendency to *withdraw* or be *aggressive* in the classroom (circle one).
☐	8.	Is *disruptive* in a group situation or seeks ways to *withdraw* or work alone (circle one).
☐	9.	Is sensitive to feelings of others.
☐	10.	Prefers discussion of ideas to memorization and rote drill.
☐	11.	Is unable to focus attention and concentrate on task at hand.
☐	12.	Responds inconsistently to teacher *motivation* or *discipline* (circle one or both).
☐	13.	Daydreams, wanders, doodles, seems to live in a fantasy world.
☐	14.	Exhibits no significant communications or relationships with peers or teacher.
☐	15.	Exploits any freedom; lacks self-direction.
☐	16.	Has limited experience with the dominant culture.
☐	17.	Shows strong sense of identity/belonging to family or own cultural group; values and interests conflict with that of mainstream society.
☐	18.	Exhibits pattern of frequent tardiness/absences, frequent moving from school to school.
☐	19.	Resists schoolwork that is perceived to have no immediate practical application.
☐	20.	Prefers novelty, personal freedom, distinctiveness in dress or actions.
☐	21.	Has keen sense of justice, quickly picks up on injustice or perceived prejudicial attitudes.
☐	22.	Tends not to be "word" dependent, but is proficient in nonverbal communication.
☐	23.	Has extensive vocabulary and/or store of experiences not readily recognized or valued in a school setting.

Developed by Marlene Bireley, Dorothy Cusack, Sara Lowe, and Margaret Van Gundy.
Adapted from Whitmore, Davis, and Rimm.

overview of giftedness and underachievement was provided. A professional lending library was established in all four buildings. The project teacher held constant informal conferences with the participating teachers.

Goal III:	To evaluate the effectiveness of the identification and intervention processes
Objective IIIa.	To administer a pre- and posttest of cognitive and academic skills
Objective IIIb.	To administer a pre- and posttest of self-esteem and social skills

Goal III Activities

As noted under Goal I, an extensive battery of individual and group tests was given, and other assessment data were gathered from the cumulative records. It was the intent of the project staff to determine the efficacy of any or all parts of this process in identifying UAG students. Additionally, several informal evaluations of the project were made, including a comparison of pre- and post-project grades, and an analysis of parent and student survey responses. The usefulness of these various data is discussed in the results section.

Project Results

Project Participants. Twenty-nine children were identified, using the specified criteria. Twenty-six remained in the district and were served by the second-year program. These UAG students included minority students, the culturally different, the disadvantaged, students from dysfunctional and drug-involved families, students with emotional problems, the homeless, and students with specific learning disabilities and/or attention-deficit hyperactivity disorder (ADHD).

Thirty-four teachers attended the staff development sessions as did two administrators. All sessions involved third- and fourth-grade teachers, and all building administrators received informal training through the communication process within the building. Parents were included in several phases with limited results. As noted, the best attendance was at informal outings rather than scheduled, in-school conferences.

Efficacy of Identification Procedures. The initial inclusion criteria identified 8 to 14% of the children in the four buildings chosen for the project. This rather high figure reflected the intent of the project to "cast a wide net" as a means of identifying the most usable criteria. The *WISC-R* scores, which served as the primary identification procedure, used the cut-off scores of 115 on any of the three IQs (Full Scale, Verbal, or Performance) or a mean of 11.5 on any of the three Kaufman factors of Verbal Comprehension, Perceptual Organization, or Freedom from Distractibility.

The checklist of 23 characteristics of UAG was developed to aid the identification and referral process. Only 54% of the students located by this instrument qualified for inclusion when tested by the *WISC-R*. It would appear from the data that this checklist was more useful as an inservice tool than as an identification instrument.

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The checklist/*WISC-R* procedure yielded 21 children of the desired 30. To complete the group, all third graders in the participating buildings who had standard scores of 110 or above on any of the subtests of the group ability and achievement tests were added to the pool if they had an uneven pattern of high and low grades. Children with consistently high grades were eliminated. Eighty-nine percent of the children identified in this manner qualified, suggesting that perusal of student records may be an integral part of the identification procedure for UAG.

Evaluating the Effectiveness of Intervention. The actual intervention time for each child was relatively short. In the second year, each group met two days per month; and, on alternate weeks, each child met with the teacher for periods of 30 to 60 minutes. It can be assumed that changes brought about by this limited contact could be enhanced by a longer-lasting or more-intensive project.

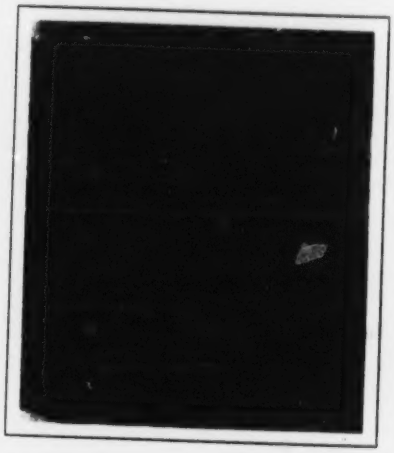
Pre- and posttest scores on the *WISC-R* indicated a significant (< .05 level) increase in all three IQ scores. In the pretest phase, 15 students demonstrated IQ scores of 115 or greater; 28 students did so on the posttest. By comparison, on the group ability test, 10 children reached at least 115 on the pretest and 19 did so on the posttest, a statistically insignificant difference.

On the *ITBS*, achievement scores improved dramatically from the second- to the fourth-grade administration (< .01 level in every instance). However, only one score on the pretest exceeded a standard score of 115 (84th percentile) and only four exceeded that level on the posttest. Even the improved scores remained in the "average" range and were useless as a lone identifier of potentially gifted children.

The *Brigance Inventory of Basic Skills* showed student increases in the areas of word recognition and reading comprehension. The grade range was second through sixth grade on the pretest, and fourth through tenth grade on the posttest. Reading comprehension ranged from second through seventh grade on the pretest and third through ninth grade on the posttest. Results of the mathematics pre- and posttest showed a loss. During the pretest, 12 students scored below grade level, 12 scored on grade level, and one scored above grade level. On the posttest, 21 students scored below grade level; four scored at grade level; and none scored above grade level. The teacher attributed this apparent loss to a discrepancy between the Springfield curriculum and the Brigance test items.

The personality type changes on the *Murphy-Meisgeier Type Indicator for Children* were interesting on one dimension. On the pretest, 25 scores occurred in the "undecided" range, as compared to 17 on the posttest. This may indicate an emerging sense of "self" on the part of the students. The most prevalent pretest type was ESFJ (extravertive, sensing, feeling, judging). On the posttest, the most prevalent type was ISFP (introvertive, sensing, feeling, perceiving).

No significant changes were found on the pre- and posttests of the *Piers-Harris Children's Self-Concept Scales*. All cluster scores fell within the average range, with popularity, happiness, and satisfaction being the lowest on the pretest. Popularity did not change, but happiness and satisfaction increased by four points and came closest to reaching significance (.11). This instrument provided useful information for the teacher in planning her affective curriculum.



The *Social Skills Rating System* was designed for input from teachers, parents, and students. The adult returns were so limited that only self-reports were included. Children assessed themselves on items that tap behaviors labeled as cooperation, assertion, empathy, and self-control. The two administrations resulted in little change (means of 106.5 and 104.1, respectively). This instrument provided little useful information, but results were hampered by lack of adult input.

It was concluded from information gained through informal observations, anecdotal records, surveys, and questionnaires from those involved in the project that building self-esteem was one of the most important components of this program. Increasing self-confidence may increase achievement as quickly as direct instruction.

At the end of the project, the teacher, who was experienced in gifted education, separated the participants into three groups: those she felt could function in a regular gifted program; those who had that potential with more support and/or intervention; and those she felt were questionable candidates. The latter group was comprised mostly of students with disabilities (e.g., learning disabled) whose multiple problems made long-term prediction difficult. In the first group, seven students were Caucasian and two were African-American; five were female and four were male. In the second group, eight students were Caucasian and three were African-American; seven students were male and four students were female. In the third group, five students were Caucasian and one was African-American; four students were male and two were female.

When grades of the three groups were compared, the first group ranged from A's to B's (with one C) and included nine children; the grades of the 11 children in the middle group, and the grades of the six children in the third group ranged from A's to D's.

Promising Practices and Recommendations

This project, while increasing the knowledge of many staff members about the needs of UAG students, underscored the inadequacy of the group-testing process as a means of identifying such children. A summary of promising practices and recommendations follows:

1. New or increased communication was established between the staff members in the areas of gifted/talented, school counseling, school psychology, dropout prevention, and environmental education. Student contacts between the UAG students and the gifted enrichment students forged liaisons and friendships between staffs and children at nine different schools.
2. The mentoring program, established in the first year between Wittenberg education students and the UAG children at one school, appeared to impact favorably upon both the college and UAG students. Not only did this enhance the educational experience of the college students, but it addressed the very real need that the UAG students had for a caring, one-on-one experience.
3. Group testing was found to be inadequate in identifying UAG students. Given the tremendous impact that life circumstances have had upon the classroom functioning and overall achievement of these students, it is important to include informal information, such as teachers' comments about the "spark" of learning and/or the "could do better if he would" behavior in deliberations about inclusion in enrichment programs.

Additionally, the need to use individual intelligence tests to verify intellectual ability seems imperative. The HUGS project staff recommends the following steps in the identification of UAG students in a low-income setting (see Figure 2):

- Provide staff with inservice concerning giftedness and underachievement;
- Take referrals from teachers;
- Search cumulative folders for grades, teachers' comments, group ability (115) and achievement (75th percentile) scores; and
- Give an individual *WISC-R*, using a cutoff of 115 on at least one subscore and/or a score of 11.5 on one Kaufman factor.

Ideally, the program in which such children would be placed would include a heavy emphasis on affective issues. If children are placed in an existing gifted program, the teacher would need to have specific knowledge about the needs of UAG students and might need support from counselors, psychologists, and special educators in addition to colleagues in gifted education.

4. Enrichment takes on a somewhat different meaning with inner city UAG students. For many of them, the field trips taken were their first visit to the zoo or COSI. The experiential and knowledge base gained by other gifted, middle-class children during common family outings constitute a distinction between the two groups that must be addressed. Additionally, many of the UAG students need individual remediation. The combination of group and individual sessions seemed to be the most beneficial arrangement for providing the needed curriculum.

5. This project had some limitations in serving the identified children. Those with learning disabilities and emotional handicaps were less successful than those with cultural or economic differences. The limited time for intervention was not sufficient to meet the needs of the dually disabled group. Even though many of the other children were not ready for regular "gifted" education at the end of the project, most made some improvement. This model should be explored for disadvantaged children of all ability levels.

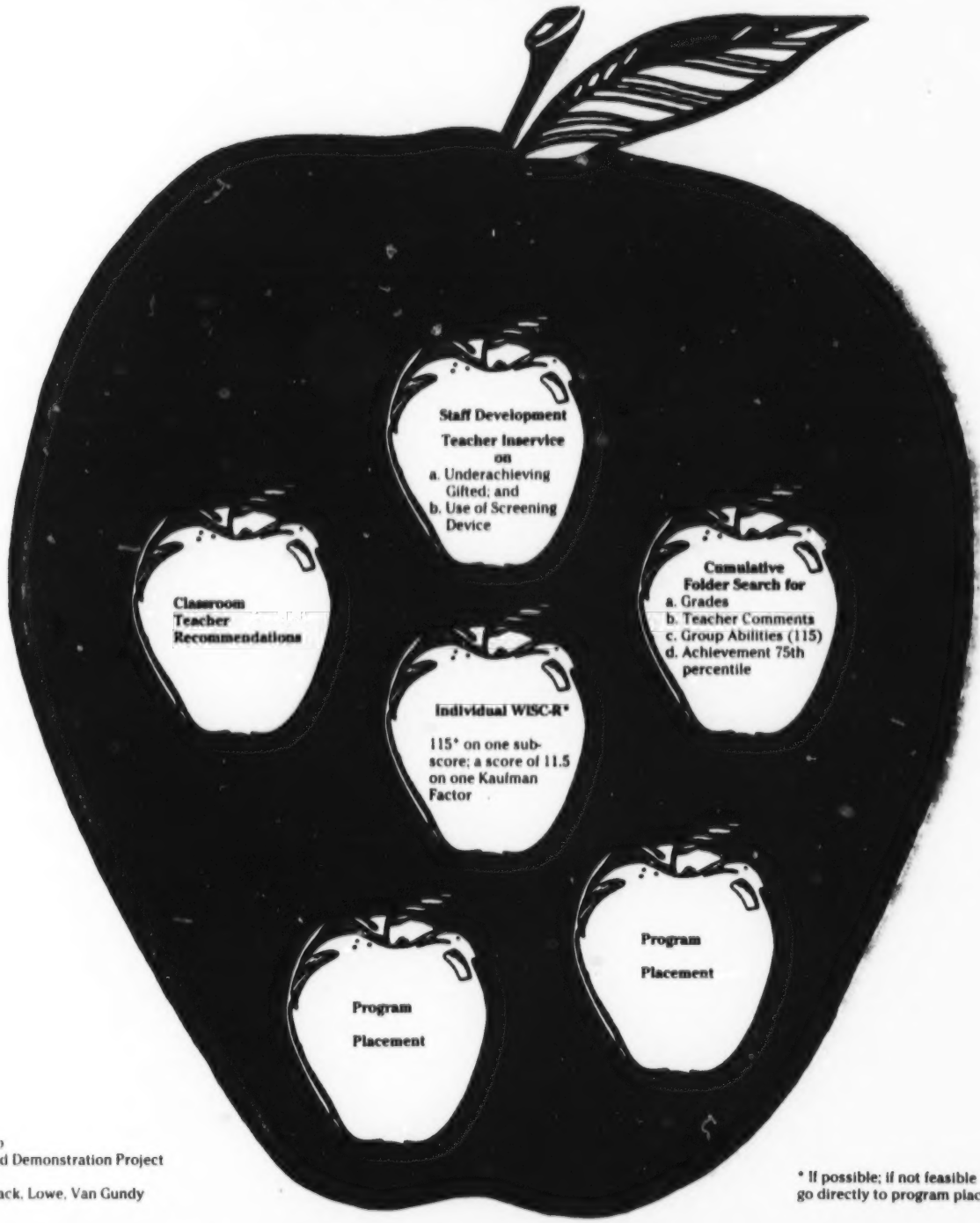
6. Although parent involvement was not at the level envisioned at the beginning of the project, an important lesson was learned. When parents were included in informal, enrichment experiences, they came and willingly participated. When formal conferences were requested, they stayed away. In all probability, their own experiences with school and their mistrust of authority figures may need to be addressed in nontraditional ways if they are to become true partners in the education process.

Project Product

Helping Underachieving Gifted Students: A Guide to Implementation can be obtained by contacting the project director. It contains a detailed description of the assessment results, an expanded description of the intervention program, the forms used throughout the project, and a bibliography and materials list.

Figure 2

Recommended Identification Process: Underachieving Gifted



State of Ohio
Research and Demonstration Project
1991
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* If possible; if not feasible go directly to program placement

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Meeting the Challenge: Assisting Underachieving Gifted Students

Identifying Information

District:	Rocky River City Schools 21600 Center Ridge Road Rocky River, OH 44116 (216) 333-6000
Location:	Suburban—nine miles west of Cleveland
School Population:	1,875 ADM (94.5% Caucasian, 3.5% Asian, 2% other minority)
Project Director:	Cathy E. Dietlin, assistant superintendent

Project Goals, Objectives, and Activities

A "teacher as researcher" model was developed to enhance implementation of the project activities. Various research strands or groups of professionals and/or parents met, studied, and developed materials to share with the entire staff, other parents, and members of the community. Additionally, the project staff developed lists of enrichment materials, purchased some of these materials, compiled a professional library, and provided opportunities for the staff to attend internal and external staff development programs. All of these strategies enhanced the individual participant's ability to fulfill the project goals for UAG students. A summary of goals, objectives, and activities follows.

Goal I:	**To design an identification process**
Objective Ia.	To determine the profile of at-risk students using multiple criteria, including cognitive, affective, and creative-thinking data
Objective Ib.	To implement a process for identifying the at-risk gifted student, K-12

Goal I Activities

The initial step in this activity, as in all others, was to conduct an extensive review of literature concerning characteristics of UAG students and the psychometric and informal methods of identifying such students. After completing this task, the primary grade "teachers as researchers" were encouraged to use observational techniques to identify behaviors commonly found in potential UAG students. In these grades, both the identification and intervention phases of the project were infused into the regular classrooms with support from the project staff and the elementary counselors.

For other students, a thorough search was made of existing data available on potential project participants. Project participants were selected through teacher recommendation or through a data-review process, the steps of which included

1. Charting data for all grade-level students who scored at or above the 95th percentile on the most recent *California Achievement Test (CAT)* (total reading, math, and language)
2. Listing current and last year's classroom performance grades in strength areas as determined by *CAT* scores
3. Listing group cognitive abilities test scores at or above 127 IQ
4. Listing any available individual IQ scores
5. Checking for current enrollment in high-level grouping (K-5) or honors programs (6-12)
6. Comparing *CAT* results, classroom performance, and ability scores
7. Eliminating achievers (those receiving "A" and "B" grades)
8. Validating the UAG student list by giving it to counselors and teachers
9. Giving teachers an opportunity to nominate additional students not identified by the above process through the use of a prereferral form, also used by the school's existing intervention assistance team (IAT)

Goal II: To provide learning options

Objective IIa. To design a K-12 staff development program that enables most district teachers to use a variety of instructional strategies to meet the cognitive and affective needs of UAG students

Objective IIb. To identify and use learning alternatives/incentives for the identified students

Objective IIc. To work collaboratively with community program and other district personnel to provide learning alternatives for the identified UAG students

Goal II Activities

This goal was attacked from several angles simultaneously. An instructional-strategies research-strand was formed. The teacher participants in this strand compiled materials and teaching strategies for themselves and their colleagues. These, and other activities described under this goal, were compiled in a *Companion Booklet* that accompanies the videotape described in Goal IV.

The IAT – building professionals sharing in a problem-solving model – provided a natural process for identifying effective strategies for serving students in the regular classroom. The inclusion of gifted education specialists, as well as special educators, in this process expanded options for both teachers and students.

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One component of the project involved the administration of the *Computerized Assessment Program: Styles of Learning (CAP-SOL)* to every UAG student. From the results of this instrument, information regarding learning styles and high/low instructional preferences was compiled and given to teachers. In turn, teachers were encouraged to select intervention activities that matched the preferences of the students. Software materials useful in serving UAG students were identified and included in the *Companion Booklet*, and teachers were encouraged to consider the role of technology in the development of intervention strategies, especially for kinesthetic learners.

Grouping models and strategies such as cooperative learning, small groups, and pull-out enrichment were explored and their use encouraged. At the primary level, a learning assistant for math enrichment was supplied on an occasional basis; at the junior high, a resource room was staffed on an occasional basis, allowing for classroom teachers to obtain information about alternative strategies for working with UAG students in the areas of study skills and time management techniques.

Collaborative options were explored on several fronts. The project staff met with the Chamber of Commerce to discuss its involvement in mentorships and job-shadowing programs. Students were given opportunities to attend several area seminars and speaker series programs. A parent/community strand was formed to involve parents directly in the research process. Their contributions are described in the *Companion Booklet.*

Goal III: **To monitor identified students' progress for the purpose of improving their achievement**

Objective IIIa. To develop a monitoring procedure for the UAG student that can easily be integrated into the current school procedures

Objective IIIb. To enhance the ongoing counseling option for gifted students that is part of the district's K-12 counseling program

Objective IIIc. To determine the role of technology for the purpose of monitoring and providing instruction to the UAG student

Goal III Activities

This goal had two major components: the development of a student-monitoring system and an affective counseling program. To implement the former, a flowchart was designed to depict the use of the district's IAT as a vehicle for serving the UAG population (see Figure 3). Additionally, a student data base, using File Maker, was designed to include state-mandated assessment data and additional individual student data. Students not identified by the current mandated data, but identified previously or by appropriate teacher nomination, were included in both the data base and intervention process.

To implement the affective program, Dr. James Webb provided staff development on issues relating to the emotional needs of the gifted, parent needs, and home/school communication. Elementary counselors started

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Activity Clubs for students identified by teachers as having high-risk behaviors. Participants in these clubs discussed such issues as channeling energy and controlling disruptive behaviors. The guidance staff formed a research strand to review materials and activities, many of which are included in the *Companion Booklet*.

Goal IV:	To implement a dissemination process
Objective IVa.	To prepare a document focusing on strand activities
Objective IVb.	To develop a video demonstrating the needs of UAG students and critical aspects of service delivery

Goal IV Activities

Two concrete products resulted from this project. The first, a videotape entitled *Meeting the Challenge: Serving the Underachieving Gifted Student*, demonstrates the critical aspects of the UAG student's needs and the services provided by this project. The second, the *Companion Booklet*, compiles the work of the various research strands and includes information on UAG characteristics, identification procedures, instructional strategies, counseling and monitoring strategies, parent information and community involvement options, and references.

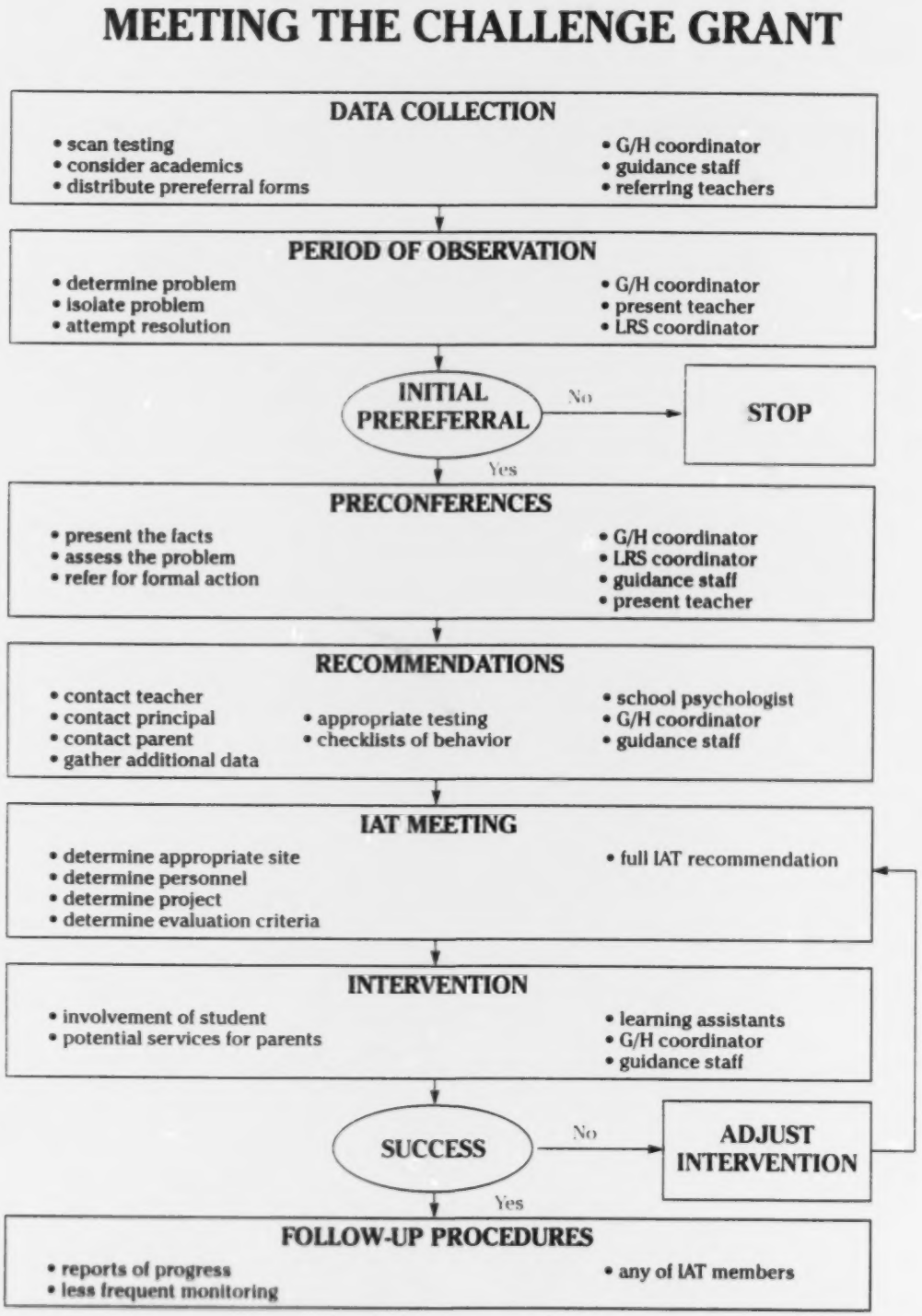
Project Results

During the first year, 75 students were selected for continued observation. Teacher awareness and assistance, as well as a more-focused identification process, reduced the second-year intervention group to 37 students in grades 6-12 and a variable number of students involved in various preventative enrichment or guidance activities in grades K-5. Students served were identified as being from the superior cognitive and/or specific academic abilities category. Creative-thinking and visual and/or performing arts underachievers were not served because of perceived identification difficulties.

Identification Process. The identified students were found through various components of the identification process from three major "pools" of children: those who had been administered individual intelligence tests in the early grades, most of whom had been referred by parents as potentially gifted; those who scored at or above the 95th percentile on one or more sections of the *CAT*; and, those referred by a teacher or counselor. Among the 37 K-12 students, 16 were identified primarily through earlier individual IQ testing; 15 were identified through current or previous *CAT* scores often supported by teacher recommendation; three were found through group cognitive ability scores; and, three were found through teacher recommendation.

Staff and Parent Participation. About 50 teachers directly served the identified students and received assistance in doing so. About 80% of the total staff participated in one or more of the development opportunities provided by the project. Directly or indirectly, all district administrators were involved in service delivery and/or staff development. About 100 parents participated in two evening presentations by outside consultants. Parents participated in the project team, in the parent/community strand that provided input to the *Companion Booklet*, and in the development of the videotape.

Figure 3
Rocky River Schools IAT Flowchart



Issues in Service Delivery. Primary school staff began to look at underachievement from a preventative viewpoint. Early detection of behaviors signaling underachievement, development of enrichment centers within the school and within individual classrooms, and Activity Clubs conducted by the school counselor were methods used to address the needs of the children considered at risk for underachievement.

Teachers of intermediate students found few UAG students through the characteristics of underachievement. Behavioral problems were more often associated with transitory family problems and/or learning disability. These students were served through various interventions not primarily associated with the project. At the junior high level, teachers met regularly in grade-level "houses" and were able to monitor student progress. Both teachers and students accepted the alternative activities provided by the learning assistant. Some teachers used the suggested activities as alternatives to in-class assignments; others gave extra points.

Most high school counselors and parents were pleased that high school students were targeted for involvement in the project. However, since participation in the intervention activities meant missing classes, concerns were raised, and the identified students chose not to attend most intervention opportunities.

Promising Practices and Recommendations

Several positive results were noted in the "teacher as researcher" model. Due to the level of direct involvement required by this model, not only did individual teachers increase their personal knowledge, but staff communication and articulation improved dramatically throughout the process. A summary of promising practices and recommendations follows:

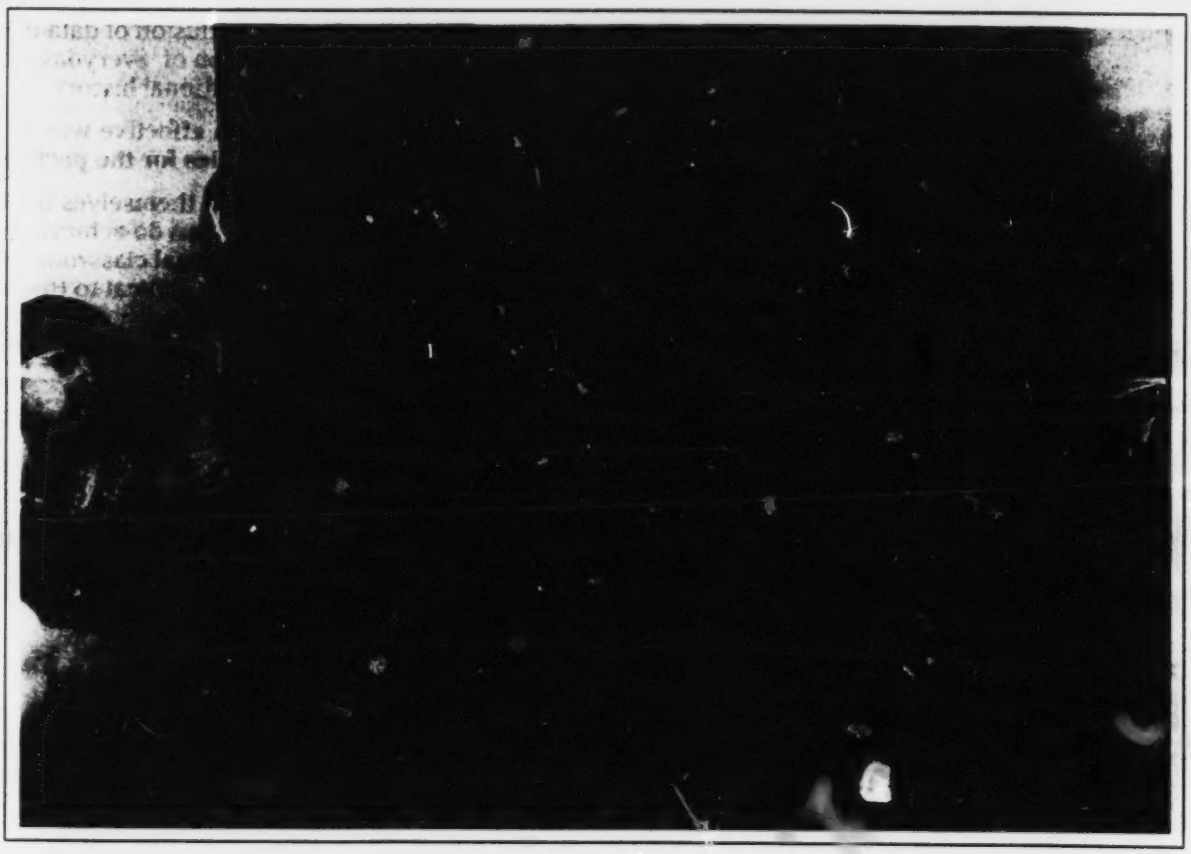
1. Teachers began to discuss solutions as well as problems and incorporated their thinking about interventions for the UAG students into their daily planning. The existing IATs became more actively used for all students once they were designated as the vehicle for designing intervention for the UAG students.
2. The use of a learning style instrument provided a different way of looking at student needs. Over half of the UAG students at the secondary level preferred a bodily-kinesthetic, "hands-on" learning style. Nearly half were reported as weak in group learning, in sequential learning, and in auditory skills. Since the demands of schooling, especially at the secondary level, require skill in all of these areas, this instrument provided excellent clues for developing an intervention program.
3. Awareness of the classroom use of the computer as a strategy for kinesthetic learners was noticeably enhanced. Several of the UAG students, primarily males, reacted very favorably to this "hands-on" approach and their increased enthusiasm was noted by their teachers.

4. The variety of sources used to identify the UAG student underscored the need for the use of a multifactored evaluation in the identification of this population. The individual intelligence test proved more useful than the group cognitive ability scores as a means of identifying those ultimately included in the project. However, interpreting the lack of fulfillment of the "early promise" of those individual tests is difficult. The project director hypothesizes that those children referred by parents had been the recipients of a wide variety of preschool experiences that may have been reflected in the tests. As schooling equalized the achievement of all of the children, that early superiority may have diminished somewhat. Since the current grades of such children did not match the cognitive potential of those early tests, these students were served by the project.

5. The results of this project are transportable and replicable. The strategies used are an integral part of the existing teaching-learning process and require only a rethinking of their application to the UAG population.

Project Product

A 17-minute videotape, *Meeting the Challenge: Serving the Underachieving Gifted Student,* and an accompanying *Companion Booklet* can be obtained by contacting the project director. The *Companion Booklet* includes a description of student characteristics, identification criteria, instructional strategies, parent and community information, and references.



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Epilogue

While the three projects serving underachieving gifted students had different goals and described underachievement somewhat differently, a few common themes and recommended practices emerge when the three projects are compared. They include

Staff development is a necessary step in identifying and serving underachieving gifted students.

In urban Springfield, the emphasis was on assisting teachers to identify potentially gifted, disadvantaged inner city children. In rural Putnam County and suburban Rocky River, teachers were trained to make curricular adaptations to accommodate the needs of underachieving gifted in their respective settings.

Identification procedures were reflective of the differing characteristics of the populations involved in the three projects.

All three projects used a discrepancy model of underachievement in which the selected students were below the level predicted by their tested intelligence. IQ cutoffs varied from 127 in Rocky River to 120 in Putnam County to 115 in Springfield. The latter project recognized that, in disadvantaged children, both ability and achievement scores may be depressed by environmental factors.

Two of the three project staffs concluded that identification of underachieving gifted students requires a multifactored evaluation.

The potential underestimation of ability and achievement when evaluated by group tests or, to a lesser degree, individual intelligence and achievement tests, must be counterbalanced by the inclusion of data from other sources, such as teacher observation, evaluation of everyday achievement and learning styles, and a review of educational history.

The assessment of learning styles provides an effective way of determining appropriate teaching/learning strategies for the participants.

Underachieving students may learn and express themselves better through kinesthetic or "hands-on" techniques than do achieving students. Interspersing such techniques with more traditional classroom activities may raise the interest of all students and may be critical to the learning process for some underachievers.

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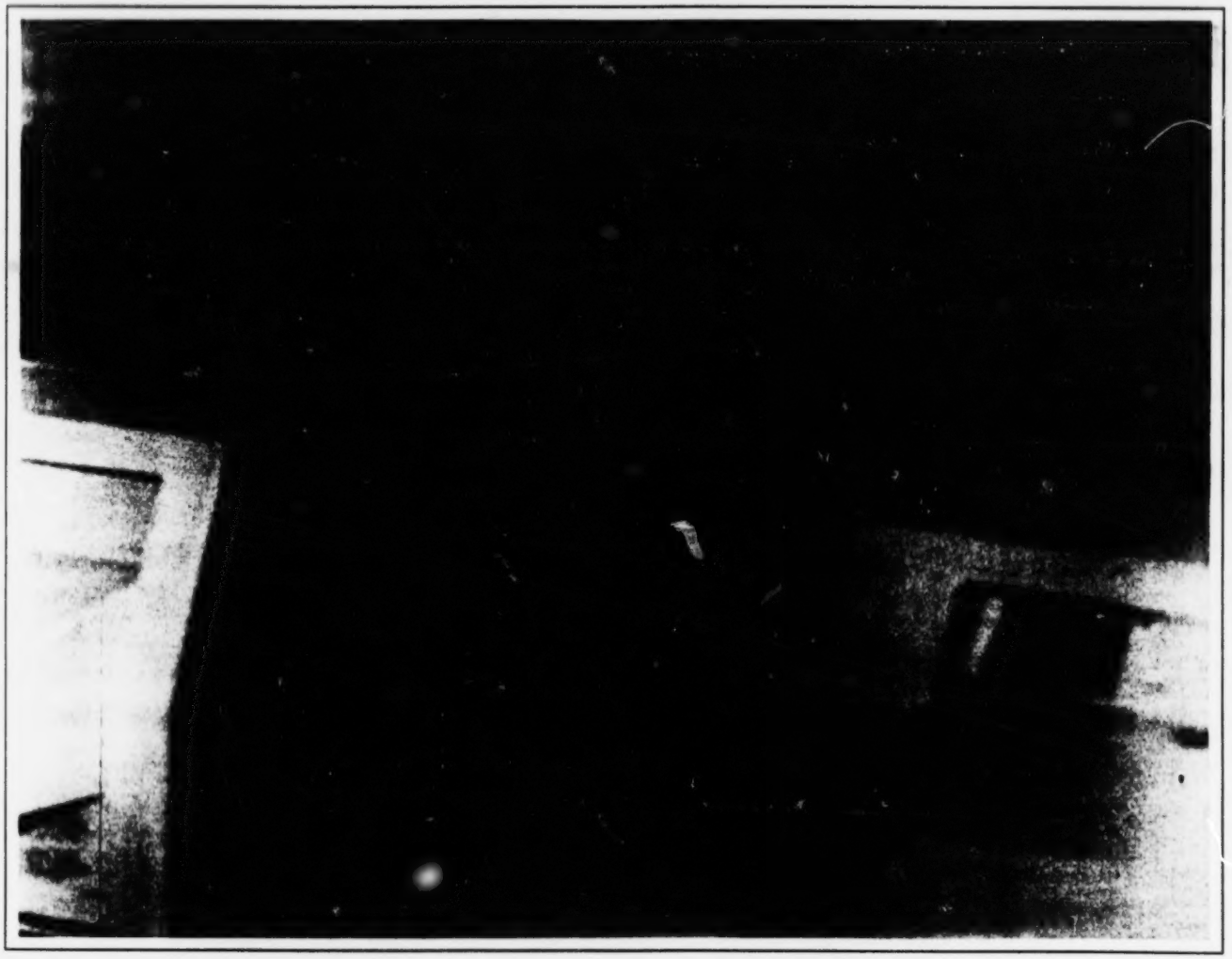
Increased use of computer-based instruction appears to be a successful intervention strategy for underachieving gifted students.

All three projects used computer-based instruction as one method of intervention. In two projects, the use of the computer was a major emphasis and was considered successful, especially for the kinesthetic, "hands-on" learners.

Pervasive underachievement requires affective as well as academic interventions.

For the rural and suburban underachieving populations, the primary interventions were academic in nature. However, the children in Springfield were coping with a variety of home situations usually described as family dysfunction and, prior to the program, had few external opportunities for enrichment based upon the financial limitations of their families. In that program, emphasis was on building positive self-esteem and providing "special" experiences through field trips. This approach was successful in raising both ability and achievement scores, even though relatively little direct instruction in basic skills took place.



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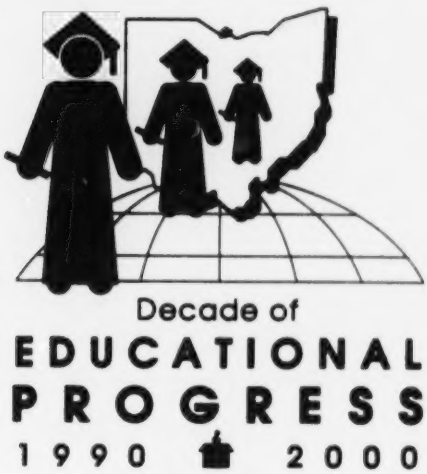

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